2007 Annual Summary

The active weather pattern from the end of 2006 continued into the first part of **January**. Temperatures were generally near or above average for the middle of winter as strong winds affected the region. On the 6th, the wind gusted to 69 mph in the Spokane Valley and 58 mph in Uniontown near Pullman. The next day featured a mountain wave windstorm in the Wenatchee area. While high winds are not rare in the Pacific Northwest, Wenatchee (due to its location) often is spared the strongest winds. But in this situation, a strong mountain wave developed which allowed the strong winds to blow in the city of Wenatchee. The peak gust at Pangborn Field was 72 mph, while at Manson the wind reached 74 mph. This wind storm caused considerable damage to the Wenatchee area.

By the middle of the month the weather had changed markedly. Cold Canadian air had moved into the region for our chilliest week of the winter. Highs were generally in the teens with sub-zero overnight lows. But the cold spell was short-lived and temperatures rebounded back to their more normal values. As is often the case, the transition from cold to warm resulted in significant snowfall. The Coeur d'Alene area picked up 5-10" of snow on the night of the 19th. A large ridge of high pressure developed over the western U.S. This pattern continued into early **February**. But since the high was slightly offshore, occasional bursts of snow and cold seeped into the area from the north.

By the second week of February the west coast ridge had moved onshore. Warming temperatures and melting snow were the result, and the first signs of spring were in the air. Temperatures on the 17th warmed into the 50s with Lewiston and Pomeroy reaching 64 degrees. But as is often the case, winter still had one more gasp. A cold unstable trough moved over the Pacific NW during the last week of the month. Showers of fluffy snow were quite common, with 2 to 4 inches accumulating in just an hour or two.

As is the case in most locations in the northern part of the country, spring weather is often changeable and can be downright lousy at times. While the temperatures are usually warming, the cloudy, windy, showery weather is often not what people are looking for. But spring brought the Inland Northwest some beautiful weather this year. Unfortunately, this also equates to drier weather.

The wet and somewhat snowy February weather persisted into the first few days of **March**. Snow advisories were issued for much of the Idaho Panhandle and extreme eastern Washington on the first and second of March. Daytime temperatures were generally in the 30s and lower 40s. In fact, the Wenatchee airport failed to warm above freezing on the 2nd with a high of only 31 degrees. But temperatures quickly rebounded into the 50s and 60s by the end of the first week and largely stayed at or above normal for the remainder of the month. One cool and showery period around the 26th lowered snow levels below 4000 feet, bringing 2.3 inches of snow to Winchester in the southern Panhandle. This storm also brought Wenatchee nearly all of it's precipitation for the whole month. It was the 11th driest March out of 48 years of record keeping. The first thunderstorms of the season occurred on the last day of the month in the Columbia Basin.

Similar to March, the first few days of **April** were cool and unsettled. Scattered snow light snow showers were observed mainly north and east of Spokane on the 2nd. The first "warm spell" of the spring arrived shortly after this, as temperatures warmed into the lower 70s for the first time at many locations. As usual, these warm ups are short-lived and followed by a cool and wetter period. The cold front that swept through the area on the 9th brought a few thunderstorms as well as some gusty winds. The strongest winds observed were 54 mph near Vantage and 48 mph at Uniontown. As April came to a close it was becoming obvious that we were in for a dry spring. The 2-month total of 0.21" at Wenatchee was the 2nd driest March/April on record.

While better known for flowers and Mother's Day, May in the Inland Northwest is often filled with several wet, cloudy and cool days. It's actually the wettest month in Lewiston. But this year May was noteworthy for its sunny skies and mild temperatures. Instead of the typical swings between 80s one day and 50s the next, temperatures were generally in the 60s and 70s throughout the month. Similar to the 2 preceding months,

May started out on a cool and wet note. But the weather quickly warmed with abundant sunshine. A mainly dry cold front moved through on the 12th, causing the development of a few dry thunderstorms near the Spokane area. One storm produced a wind gust to 51 mph at the Spokane Felts Field airport. But the cool temperatures only lasted a day or two as high pressure built into the area for more sunshine and warmth.

Then the first significant storm system of the season moved into the area. A deep low pressure system moved onshore over northern Oregon. This set up a good pattern for Wenatchee to finally get some much needed rain. The 2-day total of 1.51" was the wettest 2 day rain event in May ever observed since airport records began in 1959. As the storm moved out of the area, a line of thunderstorms developed over northeast Washington on the 21st and moved southward over the Spokane area. The Spokane Airport received 1.11" of rainfall from these storms. The cold temperatures resulted in snow over the mountains, with 6-10" of snow reported in the Cascades and Idaho mountains.

While the wet event in late May made up for the large precipitation deficit in many locations, the Lewiston area was still well below average at the end of May. The 3-month total of 2.16 was just over half of their normal amount. This was the 7th driest spring on record for Lewiston, with records going all the way back to 1881.

OK, so how hot was it? The summer of 2007 will go down in the records as one of the hotter summers in the Inland Northwest, or will it? Comparing it to other summers is often the best way to put it all in perspective.

The summer actually started off rather mild. Temperatures in **June** were very close to those for an average June, although there were a bit warmer than usual in Lewiston. The month started off downright hot, with temperatures in the 90s for the first few days which was about 20 degrees warmer than normal for that time of year. But as usual in early June, the heat didn't last and more moderate temperatures returned for the bulk of the month. Instead of temperatures, it was the continuation of dry weather that was the noteworthy aspect. After a disappointing spring, there was still a chance for June rainfall to make up for the recent dry

spell. Unfortunately it was not to be. Most locations had less than half of their normal rainfall for the month. The rainfall also was rather spotty rather than widespread, so the precipitation numbers tended to be a bit deceiving. In contrast to last summer's active thunderstorm season, this year's was rather lacking. The only notable event for June was on the last day of the month. Strong thunderstorms caused wind damage in the Idaho Panhandle from Coeur d'Alene up to the Canadian border. Golfball-sized hail was also reported southeast of Lewiston.

Then the heat arrived in earnest. It's typically the pattern around here that the consistent hot weather of summer doesn't start until after the 4th of **July**. This year, it was a day or two early. Temperatures for the mid-summer holiday were in the 90s, and reached the triple digits in most places on the 5th. The heat subsided a bit after a few days but returned quickly. This time it broke with mainly dry thunderstorms on the 13th. Wind gusts from these storms reached 53 mph at the Spokane International Airport. For the remainder of the month daytime readings typically reached the 90s, but the extreme heat wasn't seen again. For the month overall, July 2007 was the 2nd hottest month (any month of the year) ever for both Spokane and Lewiston, bested only by July 1906. While the number of 90+ degree days at Spokane this year (16) was much higher than normal (9), it was well below the record of 20 days in 1985.

An analysis of hot July's showed that not all **August's** follow suit. In fact, just the opposite often occurs. Hot July's are more often followed by near or below normal Augusts. And this was the case for 2007. In fact, it was cooler than the past 4 Augusts. There were only 3 hot spells in the month, each lasting only a couple of days. And a very cool air mass on the 20th and 21st kept daytime temperatures below 70 at nearly every location, a welcome relief from the summer heat. This event also brought some much-needed rainfall to the area. Precipitation amounts ranged from just a few hundredths in the Cascades to nearly one-half inch at Ritzville and La Crosse. Another round of rainfall arrived on the last day of the month. This time strong thunderstorms accompanied the rain. Hail and strong winds were felt over many communities of extreme eastern Washington and the Idaho Panhandle.

Thus, while July was no doubt one of the hottest months ever, the accompanying June and August were actually quite normal. The result is a less-than-noteworthy average temperature for the 3 months of summer. When looking at the average temperature of just July and August (the true summer months in the Inland Northwest), the summer of 2007 ranks 13th hottest at both Spokane and Lewiston. The recent hot summer of 1998 still stands out as a much hotter summer than this year.

It was another beautiful autumn in the Inland Northwest this year, with mild temperatures and lots of sunshine during the first half of the season, and then cool and wet weather for the second half. **September** began in its usual fashion, with temperatures in the 80s and even lower 90s as summer tried to hold on for a few more days. This weather lasted until the middle of the month when our first Pacific front moved into the area. While there wasn't a lot of precipitation with this system, the temperatures dropped considerably. 80s were replaced by 60s and upper 50s. This event really marked an end to the warm summer temperatures and ushered in autumn weather. A couple of colder and wetter fronts arrived by the end of the month. Ahead of these temperatures warmed back up into the 70s and lower 80s but were quickly replaced by

50s and 60s. The mountains received their first dusting of snow as the freezing levels dropped to around 4500 feet. September wound up very close to average for temperatures but on the dry side with precipitation.

The cool showery weather continued into the first part of **October**. Temperatures hovered in the 50s with rain showers. There was even some graupel (small hail) from the showers on the 4th. This is fairly common in March, but a rare sight for October. The rain was also quite heavy for early October. Chelan picked up ¾ of an inch on the 1st and Bonners Ferry received 0.62" of rain on the 4th. A break in the Pacific storms allowed the area to dry out and warm up a bit. Lewiston reached 87 degrees on the 9th with Pullman topping out at 81F. More cold and wet weather arrived in the middle of the month. Daytime temperatures stayed in the 40s in some locations. Meanwhile the mountains picked up some significant snow, with 5-10" falling in the Cascades and Panhandle mountains. Any thoughts of an early ski season were dashed as valley temperatures once again rebounded into the 60s and 70s, melting all of the mountain snow. Ritzville set a new record high on the 23rd with a maximum temperature of 78 degrees. But just as quickly as it warmed up, cooler air came in from the north. Nighttime temperatures dropped into the teens in the northern valleys. When it was all said and done, October came in a bit cooler and wetter than normal.

The first few days of **November** were dry and sunny. But that didn't last. Wet weather set in on the 7th and continued through the 19th. This round of storms ended with a strong low pressure system moving across northern Oregon. This storm brought the first real snow to the lowlands. Spokane picked up less than ½ inch, but southeast Washington and the southern Idaho panhandle were the big winners. Winchester, ID (south of Lewiston) received 14.1" of the white stuff, and Pomeroy, WA received 6.5". But all of the clouds and storminess actually kept temperatures rather mild. Then the first wintry air mass moved in behind this last storm. Nighttime temperatures dropped into the teens while daytime temperatures stayed below freezing in most locations for the rest of the month. More storms moved into the area at the end of the month bringing more snow. Valley locations north and east of Spokane received 4-8" of snow on the 27th. Then just about every location picked up 1-3" of snow on the 29th. So at the end of the month, the Inland Northwest was covered in a blanket of white.

December started with a blanket of snow over most of the area. This snow had quickly accumulated in the last few days of November. But just as quickly as it accumulated, it melted as the weather pattern changed. Warm air from the Pacific moved into the region. Priest Rapids Dam (near Hanford) recorded a balmy 63 degree high on the 3rd. Heavy rain accompanied the warm air with 1 to 2 inches falling on the same day. The exception to this was in the lee of the Cascades where the cold air remained in place long enough to keep the precipitation as snow longer before changing to rain. Holden Village received 27" of snow in 24 hours ending on the morning of the 3rd, while Stehekin and Plain picked up a foot and a half of snow.

But the warm weather pattern was short-lived and the snow machine started up once again. None of the storms were especially strong, but they were all snow. A storm on the 10th of the month dumped 4-5" on the Palouse. Another storm on the 15th brought 4-6" to some locations

in the Cascades and Okanogan Valley. A third storm on the 17th dropped 4-6" to the valleys north and east of Spokane. More snow fell on the 18th with just about everyone seeing another 3-6" of snow. And so it went for the rest of the month. By the end of the month, just about everyone had several inches of snow on the ground. Spokane Airport reported measurable snow on 18 days (none of which amounted to 2" or more), compared to an average of 8 days. Spokane hadn't seen that many snowy days in any month since the very snowy January 1969.

Site: Wenatchee, WA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average High Temp	32.5	41.2	54.4	62.0	73.6	77.2	91.5	84.5	76.7	59.2	44.5	34.4	61.0
Dep from Normal	-1.4	-0.4	+1.9	-0.9	+2.1	+1.5	+4.8	-1.6	+0.2	-2.5	+0.6	-1.3	+0.3

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average Low Temp	20.2	30.3	35.2	40.7	48.3	54.9	65.0	59.6	52.9	49.5	30.8	24.8	42.7
Dep from Normal	-1.6	+3.6	+1.5	+0.8	+0.7	-1.0	+5.2	-0.1	+2.0	-0.6	+0.4	-0.4	+0.9

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Precipitation	0.18	1.20	0.16	0.05	1.82	0.03	Tr	0.04	0.11	0.39	0.68	1.81	6.47
Dep from Normal	-.96	+.34	-.52	-.42	+1.21	-.61	-.30	-.31	-.32	-.06	-.31	+.29	-1.97

Site: Lewiston, ID

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average High Temp	37.6	46.6	58.4	63.0	73.6	80.4	95.8	88.7	78.6	62.8	47.4	41.4	64.5
Dep from Normal	-1.8	+1.0	+4.6	+1.4	+3.7	+3.5	+8.2	+1.1	+1.9	+0.9	+0.6	+2.2	+2.2

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average Low Temp	24.6	32.8	38.8	40.2	47.3	54.2	64.8	58.3	50.4	41.8	32.3	31.0	43.0
Dep from Normal	-3.4	+1.6	+3.2	-0.4	+0.4	+0.4	+5.8	-1.0	-0.5	+0.6	-1.8	+2.5	+0.6

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Precipitation	0.11	1.11	0.77	0.57	0.82	0.76	0.04	0.37	0.10	1.08	1.65	0.36	7.77
Dep from Normal	-1.03	+.16	-.35	-.74	-.74	-.40	-.68	-.38	-.71	+.12	+.44	-.69	-5.16

Site: Spokane, WA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average High Temp	31.2	39.1	51.5	57.1	68.5	73.8	89.8	81.8	72.1	56.4	41.8	33.3	58.0
Dep from Normal	-1.6	-0.2	+2.9	-0.4	+2.3	-0.1	+7.3	-0.8	-0.4	-2.1	+0.7	+0.5	+0.8

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average Low Temp	18.2	28.8	33.9	36.0	43.9	50.6	61.5	55.0	46.4	37.3	28.1	23.6	38.6
Dep from Normal	-3.5	+3.1	+3.5	+0.5	+1.3	+1.4	+6.9	+0.5	+0.5	+1.5	-0.6	+2.0	+1.4

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Precipitation	0.67	1.81	1.00	0.50	1.62	0.59	0.43	0.57	0.37	1.18	1.53	3.72	13.99
Dep from Normal	-1.15	+.30	-.53	-.78	+.02	-.59	-.33	-.11	-.39	+.12	-.71	+1.47	-2.68

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Snowfall	11.8	9.6	0.1	Tr	0.3	0	0	0	0	Tr	3.8	20.1	45.7
Dep from Normal	-0.7	+1.6	-3.5	-0.9	+0.1	0	0	0	0	-0.3	-2.6	+5.0	-0.7